

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/35295

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B32B 5/16; C01F 17/00; C09K 11/08
 US CL : 428/403, 404, 407; 252/301.4R, 521.1; 423 21.1, 263

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 428/403, 404, 407; 252/301.4R, 521.1; 423 21.1, 263

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 WEST, nanoapex.com, nanomagazine.com, google.com

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,530,944 B2 (WEST et al) 11 March 2003, col. 8, lines 60-67; col. 9, lines 48-54; col. 10, line 65 to col. 11, line 45; col. 13, line 1 to col. 14, line 44.	1-34
X	US 6,783,699 B2 (LI et al), 31 August 2004, col. 4, lines 5-34 and lines 52-57; col. 5, lines 32-65; col. 6, lines 15-25; and col. 7, lines 10-28.	1-20
A	US 5,990,479 A (WEISS et al) 23 November 1999, entire document.	1-34
A,T	US 6,870,311 B2 (MUELLER et al) 22 March 2005, entire document.	1-34
A, T	US 6,846,565 B2 (KORGEL et al) 25 January 2005, entire document.	1-34

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

19 June 2005 (19.06.2005)

Date of mailing of the international search report

12 JUL 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 Facsimile No. (703) 305-3230

Authorized officer

H. T. Le

Telephone No. 571-272-1511

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 35 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claim 35 recites the drawings as the claimed apparatus. The features of the claimed apparatus cannot be determined and/or ascertained. Thus, no meaningful search can be carried out.

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.